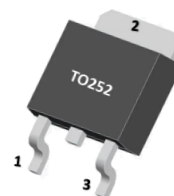


DESCRIPTION

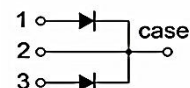
The MBR2045DS meet the ROHS and Green Product requirement with full function reliability approved.

FEATURE

- * Low Power Loss, High Efficiency.
- * Guard Ring Die Construction for Transient Protection.
- * High Current Capability and Low Forward Voltage Drop.



1. ANODE
2. CATHODE
3. ANODE



ABSOLUTE MAXIMUM RATINGS(TA=25°C, unless otherwise specified.)

SYMBOL	PARAMETER		VALUE	UNIT
VRRM	Peak repetitive reverse voltage		45	V
VRWM	Working peak reverse voltage		45	V
VR	DC blocking voltage		45	V
VR(RMS)	RMS reverse voltage		31.5	V
IO	Averagerectifiedoutputcurrent		20 (10*2)	A
IFSM	Non-Repetitive peak forward surge current(8.3ms half sine wave)		150*2	A
Tj	Junction temperature		150	°C
Tstg	Storage temperature		-55~+150	°C
RθJA	Thermal Resistance fromJunction to Ambient	TO-252	100	°C/W
RθJC	Thermal Resistance From Junction To Case	TO-252	5	°C/W

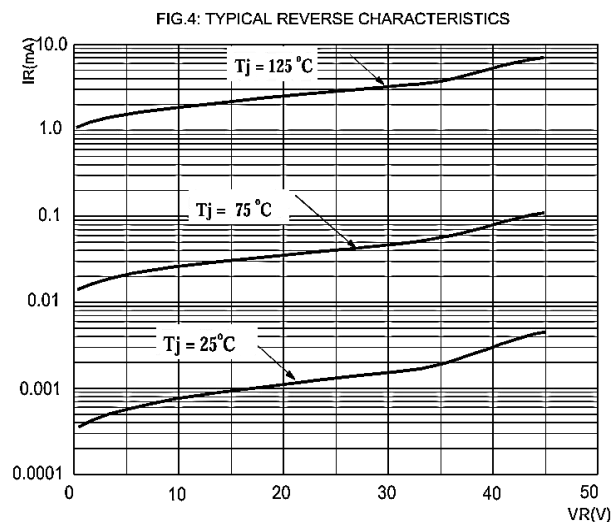
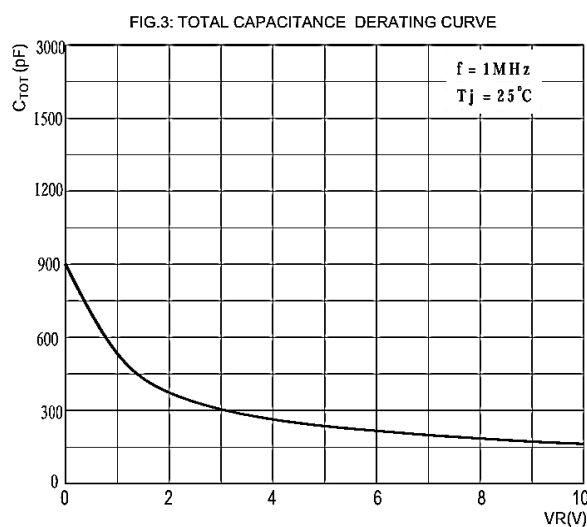
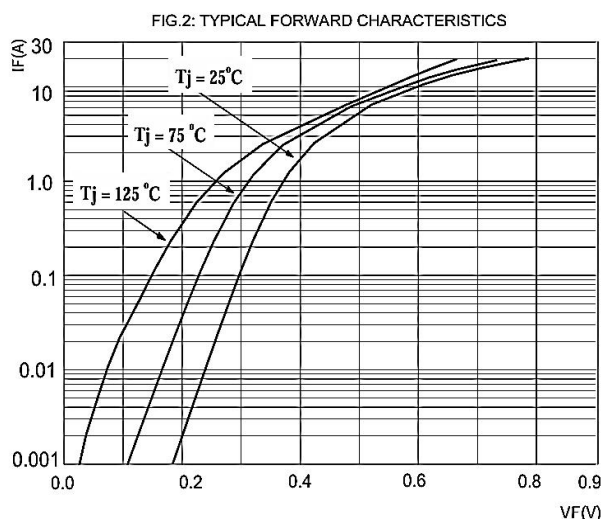
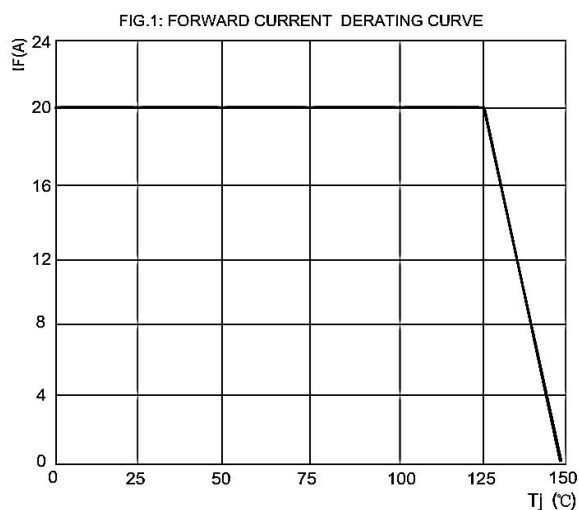
Notes: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (TA=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse voltage	$V_{(BR)}$	$I_R=0.1mA$	45			V
Reverse current	I_R	$V_R=45V$		$T_J=25^{\circ}C$	10	μA
				$T_J=125^{\circ}C$	10	mA
Forward voltage	V_{F1}	$I_F=5A$		$T_J=25^{\circ}C$	0.5	V
				$T_J=125^{\circ}C$	0.44	V
	V_{F2}	$I_F=10A$		$T_J=25^{\circ}C$	0.60	V
				$T_J=125^{\circ}C$	0.56	V

*Pulse test: pulse width $\leq 300\mu s$, duty cycle $\leq 2.0\%$.

■ TYPICAL CHARACTERISTICS



■ TO - 252 Package Outline Dimensions

